ORIGINAL

DIVISION OF CONSUMER ADVOCACY
Department of Commerce and
Consumer Affairs
335 Merchant Street, Room 326
Honolulu, Hawaii 96813
Telephone: (808) 586-2800

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Application of)	
)	
HAWAIIAN ELECTRIC COMPANY, INC.)	DOCKET NO. 2008-0303
HAWAII ELECTRIC LIGHT COMPANY, INC.)	
MAUI ELECTRIC COMPANY, LIMITED)	
)	
For Approval of the Advanced Metering)	
Infrastructure (AMI) Project and Request to)	
Commit Capital Funds, to Defer and)	
Amortize Software Development Costs, to)	
Begin Installation of Meters and Implement)	
Time-of-Use Rates, for Approval of)	
Accounting and Ratemaking Treatment, and)	
Other Matters.)	

DIVISION OF CONSUMER ADVOCACY'S DIRECT TESTIMONY

Pursuant to the agreed upon Schedule of Proceedings set forth in the Order Approving Stipulated Procedural Order, as Modified, filed on April 21, 2009, the Division of Consumer Advocacy submits its **DIRECT TESTIMONY** in the above docketed matter.

DATED: Honolulu, Hawaii, June 22, 2009.

Respectfully submitted,

By Catherine P. Awakuni

CATHERINE P. AWAKUNI
Executive Director
DIVISION OF CONSUMER ADVOCACY

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DIRECT TESTIMONY AND EXHIBITS

OF

DEAN K. NISHINA

THE DIVISION OF CONSUMER ADVOCACY

SUBJECT: PROPOSED INSTALLATION OF ADVANCED METER INFRASTRUCTURE BY THE HECO COMPANIES AND OTHER MATTERS

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DIRECT TESTIMONY OF DEAN NISHINA

I. INTRODUCTION.

Q. PLEASE STATE YOUR NAME, POSITION AND PLACE OF EMPLOYMENT.

A. My name is Dean Nishina and I am the Public Utilities and Transportation Officer for the Division of Consumer Advocacy, Department of Commerce and Consumer Affairs ("Consumer Advocate").

Q. PLEASE STATE YOUR PROFESSIONAL EXPERIENCE AND EDUCATIONAL BACKGROUND.

A. Please see Exhibit CA-100.

Q. WHAT ARE YOUR AREAS OF RESPONSIBILITIES IN THIS DOCKET?

A. I am responsible for discussing all of the areas related to the requested approvals and authorizations associated with the proposed installation of advanced meter infrastructure ("AMI") by Hawaiian Electric Company, Inc. ("HECO"), Hawaii Electric Light Company, Inc. ("HELCO"), and Maui Electric Company, Ltd. ("MECO") (herein after collectively referred to as the "Companies" or "Applicants") in their respective service territories.

A. INTRODUCTION TO THE COMPANIES.

Q. PLEASE PROVIDE A DESCRIPTION OF THE APPLICANTS.

A. HECO, HELCO and MECO are all Hawaii corporations and are operating public utility companies engaged in the production, purchase, transmission, distribution and sale of electric energy for domestic, commercial, industrial, agricultural and governmental purposes on the islands of Oahu, Hawaii and Maui, respectively.

Based on recent financial information filed with the Hawaii Public Utilities Commission ("Commission"), HECO, HELCO and MECO provide service to the various classes of customers through approximately 293,700, 79,300, and 67,100 meters, respectively.[1]

[1] The information is from the April 2009 monthly financial statements filed with the Commission. It should be noted that the values for HECO and HELCO represent the sum of meters serving each customer class. The financial statement for MECO does not provide meter information, so the total number reflected actually represents the number reported customers.

B. THE COMPANIES' REQUESTED APPROVALS AND AUTHORIZATIONS.

Q. THE COMPANIES ARE SEEKING COMMISSION APPROVAL OF ITS PROPOSED AMI PROJECT AND OTHER RELEVANT MATTERS. COULD YOU PLEASE SUMMARIZE THE COMPANIES' REQUESTED RELIEF THAT THEY SEEK IN THE INSTANT PROCEEDING?

A. As summarized on pages 1 through 4 and 85 through 88 of the application, the Companies are seeking Commission approval to:

1. Commit capital funds currently estimated at a total of $65,025,000 ($41,229,000 for HECO; $13,190,000 for HELCO; and $10,606,000 for MECO) for the AMI project;
2. Defer certain software development costs and accrue an allowance for funds used during construction ("AFUDC") and the current estimate of those deferred costs total $13,540,000 ($9,134,000 for HECO; $2,385,000 for HELCO; and $2,021,000 for MECO);
3. Amortize the deferred meter data management system ("MDMS") costs over a 12-year period and to include the unamortized deferred costs in rate base;

4. Implement cost recovery procedures that allow the Companies to recover on an expedited basis, for ratemaking purposes, the remaining net book value of its existing meters;[2]

5. Implement cost recovery procedures that allow the recovery of the capital costs associated with the purchase and installation of the new AMI meters over a period of seven years;

6. Install, on a first-come, first-served basis, AMI for all customers who request AMI meters and to implement time-of-use ("TOU") rates on an interim basis;

7. Offer the TOU rates proposed by the Companies in the most recent rate proceedings as the TOU rates that should be implemented, at least on an interim basis.

8. Recovery of all incremental costs (i.e., not already recovered through base rates) associated with the AMI project through the Renewable Energy Infrastructure Program surcharge that is pending approval in Docket No. 2007-0416, or an AMI surcharge.

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[2] As will be discussed in greater detail in later sections, the Companies are proposing that HECO be allowed to recover these costs on a straight-line basis over a period of three years, beginning with the effective date of the Commission's Decision and Order in the instant proceeding; HELCO be allowed to recover these costs over a straight-line basis that begins with the Commission's Decision and Order and ends when HELCO begins to install the meters in question; MECO be allowed to recover these costs over a straight-line basis that begins with the Commission's Decision and Order and ends when MECO begins to install the meters in question.

9. Enter into the agreement with Sensus Metering Systems, Inc. ("Sensus") (the agreement will be hereinafter referred to as the "Sensus Agreement"), including all terms and conditions of the Sensus Agreement and a finding that the Sensus Agreement is in the public interest and that all related costs, fees, and related taxes to be paid by the Companies are recoverable as revenue requirements when setting rates.

10. Recovery of lease expenses for the Sensus-owned, two-way radio frequency network infrastructure ("AMI Network").

C. HAWAII CLEAN ENERGY INITIATIVE.

Q. PLEASE DESCRIBE THE ENERGY AGREEMENT AMONG THE STATE OF HAWAII, DIVISION OF CONSUMER ADVOCACY OF THE DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, AND THE HAWAIIAN ELECTRIC COMPANIES ("ENERGY AGREEMENT").

A. The Energy Agreement was signed on October 20, 2008, and the signatories to the agreement were the Governor of the State of Hawaii, the Department of Business, Economic Development and Tourism ("DBEDT"), HECO, HELCO, MECO, and the Consumer Advocate. The Energy Agreement's primary objective is to outline various items that are supposed to help the State of Hawaii reach the objective of having 70% of its energy provided by clean resources.

On pages 24 and 25 of the Energy Agreement, the language relevant to AMI is offered (See section 14, paragraphs 1 through 7). The Companies have quoted these paragraphs on pages 8 and 9 of the application in the instant proceeding. The Energy Agreement is fairly specific as it relates to certain aspects of the AMI. For instance:

- The meters and associated costs will be paid for through the Clean Energy Infrastructure Surcharge ("CEIS"), until such costs are embedded and recovered in the utilities' base rates in future rate cases.
- The Companies were required to file an application by December 31, 2008, wherein the Companies would seek Commission approval to install AMI equipment to all customers that do not already have advanced meters.
- The Companies' application should clearly identify the desired goals, business purposes, functionality and cost for advanced meters and MDMS.

Q. HOW DID THE ENERGY AGREEMENT AFFECT YOUR ANALYSIS?

A. In general, I approached the analysis in this proceeding the same way as any other company. That is, I analyzed the issues, viewed the documentation to evaluate whether the quality and quantity of the support was acceptable. In this case, however, given the representations made in the Energy Agreement,

there will be times in this testimony, where the Consumer Advocate's position is offered primarily as a means by which to remain faithful to the Energy Agreement.

D. GENERAL OVERVIEW OF THE ISSUES.

Q. PLEASE DISCUSS HOW YOU PLAN TO ADDRESS THE VARIOUS REQUESTS THAT ARE MADE WITHIN THE COMPANY'S APPLICATION.

A. I plan to discuss the various issues that I would like to raise for the Commission's consideration generally within the context of the issues that are identified in the Order Approving Stipulated Procedural Order, As Modified filed on April 21, 2009 in the instant docket. Those issues are as follows:

1. Is the HECO Companies' proposal to implement the AMI Project reasonable?
2. Are the estimated costs reasonable?
3. Is the proposed accounting treatment of AMI project costs reasonable?
4. Is the proposed cost recovery of AMI project costs for ratemaking purposes reasonable?
5. Are the terms and conditions of the Sensus Agreement between HECO and Sensus Metering Systems, Inc. reasonable, prudent and in the public interest?
6. Are the proposed time of use rates reasonable?

Q. ARE YOU PLANNING TO ADDRESS EACH ISSUE?

A. While each of the identified issues is important and warrants much consideration, due to an extremely heavy workload, I do not believe that I can offer the discussion that could, and really should, be offered on the identified issues. That being said, I plan to at least generally touch upon every issue, but there are specific issues or concerns that I plan to discuss in greater detail. My discussion shall, however, be generally presented within the framework of the identified issues.

II. THERE ARE CONCERNS THAT SHOULD BE ADDRESSED BEFORE AN UNQUALIFIED APPROVAL SHOULD BE GRANTED ON THE PROPOSED AMI PROJECT.

Q. COULD YOU PROVIDE A BRIEF DESCRIPTION OF THE SYSTEM THAT THE COMPANIES ARE PROPOSING TO IMPLEMENT?

A. Yes. The Companies' proposed AMI project is generally comprised of the following:

- 100% replacement of all existing meters with AMI meters that are capable of collecting, transmitting data to the Companies and displaying information to the customers;
- A MDMS, which is the data management system that will basically perform various functions such as: 1) collection system integration; 2) data validation; 3) data storage; 4) perform various data aggregation and calculations; 5) exports data; and 6) data interfaces;

- Implementation of a two-way, radio frequency ("RF") network to provide the means by which the AMI meters communicate with the MDMS;
- Adoption of the TOU programs that were most recently proposed in each company's most recent rate proceeding; and
- Integration of the MDMS with each company's customer information system ("CIS").

As will be discussed in greater detail in later sections, the proposed project will total $115,016,000.[3] The Companies propose to allocate these costs such that HECO will be responsible for $73,716,000, MECO will be responsible for $19,104,000, and HELCO will be responsible for $22,196,000. Of the total $115,016,000, $68,784,000 represents capital costs, $13,540,000 represents deferred costs, and $32,692,000 represents expense costs.

As discussed throughout the application, the Companies are proposing to install the proposed project in phases, where there will be staggered installation of the meters and associated infrastructure for all three companies. Based on the assumption that the Commission approves the application by January 2010 and the project proceeds as planned, the project will be completed some time in December 2015. Therefore, the Companies are proposing a six-year implementation schedule.

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[3] In the Exhibit 19 attached to the application, the Companies outlined the originally estimated total cost of $110,364,000. In the response to CA-IR-35, which provides updated costs and benefits, the Companies' most recent estimate is $115,016,000.

Obviously, the proposed project is no small investment regardless of whether evaluated in terms of cost, effort, or potential impact (both on the Companies and/or the customers for each company). Thus, careful consideration should be exercised to insure that the investment, if approved, will result in an optimal solution that will benefit Hawaii.

A. IS THERE A NEED FOR THE PROJECT?

Q. GIVEN THE MAGNITUDE OF THE PROJECT, HAS THE NEED FOR THE PROJECT BEEN CLEARLY DEFINED?

A. In answering this question, one must take into consideration the Energy Agreement. As already discussed earlier, one of the commitments made in that Energy Agreement related to the Companies' commitment to file an application before the Commission seeking approval to implement AMI. Thus, in order to comply with the Energy Agreement, there was clearly a need for the Companies to file an application that complied with the general terms and conditions in the Energy Agreement that related to AMI.

The Consumer Advocate supports the idea of the transition to a smart grid. I acknowledge that there are varying definitions of the smart grid, but for purposes of this testimony, when references to a smart grid is made by me, I am considering that the general concept of a smart grid entails the use of available technology to improve the availability of data to producers (utility and non-utility) and consumers (all customer classes) such that each stakeholder

can make informed decisions relating to the management of supply, transmission, distribution and consumption decisions. To that end, the Consumer Advocate acknowledges that AMI can be viewed as a critical component to the transition towards a smart grid.

That being said, the need for the Companies' defined AMI project is not that clear. This statement is significantly influenced by the total project cost and other factors. Given the proposed magnitude of the project, it is the Consumer Advocate's contention that the project must clearly be a cost effective decision and, as will be discussed throughout various sections of this testimony, I do not believe that the cost effectiveness of the AMI project has clearly been supported. Besides cost effectiveness, there are other factors that support my conclusion that the need for the defined project is not clear. For instance, another factor that has caused considerable consternation is the dynamics that will be caused by the implementation of revenue decoupling and the AMI. One of the key benefits from any AMI system is the ability to implement tariff pricing regimes to influence consumer demand. However, with the decoupling proposal that is being submitted for the Commission's approval in Docket No. 2008-0274, it is not clear whether the pricing signals that will be sent will achieve the intended objectives. It is not clear that the AMI system as proposed is needed to meet the stated objectives.

Q. ARE YOU STATING THAT THERE IS NO NEED FOR AN AMI SYSTEM?

A. No, not necessarily. With the technological developments that have occurred, both in terms of the smart meters, the communication systems, and other relevant hardware and software, the implementation of an AMI system will meet the growing need to disseminate information to consumers to advance the awareness of energy consumption and pricing. The Consumer Advocate subscribes to the general belief that an informed customer will be the type of customer who can best help Hawaii achieve the objectives of the Energy Agreement. My statement regarding the lack of clear need specifically relates to the AMI project that has been proposed in this application.

B. THE PROPOSED SCOPE IS NOT UNREASONABLE.

Q. AS ORIGINALLY PROPOSED, THE COMPANIES INDICATED THAT APPROXIMATELY 95 TO 96 PERCENT OF ALL EXISTING METERS WOULD BE REPLACED. NOW, THE COMPANIES INDICATE THAT 100% OF ALL METERS WILL BE REPLACED. DO YOU BELIEVE THIS IS REASONABLE?

A. Yes, but with certain qualifications. There are certain reasons that support the reasonableness of replacing all meters. First, there is some concern about the equity of the original proposal. While there might have been valid reasons to originally consider excluding this group of customers, if four to five percent of the consumers were not going to receive smart meters, it did not seem

equitable to exclude them. Since these customers would still be required to pay the same rates, within which the costs of the proposed project are being recovered, these customers would clearly be paying rates that would include *costs related to a project from they did not and could receive any direct* benefits.

In addition, while I am not aware of any analysis that was conducted, I assume that it would be generally less costly to maintain a homogeneous class of meters. Otherwise, different inventories would have to be carried, different parts for each meter type would have to be carried, different training would be necessary and so on. If all existing meters are replaced instead of 95 to 96 percent, it would seem that, in the long run, a lower cost of service might be achieved.

Q. DO YOU HAVE ANY OTHER COMMENTS TO OFFER ON THE PROPOSED SCOPE OF THE PROJECT?

A. Yes. As already indicated, there was a concern with the equity of requiring certain customers to pay rates that included the costs of a project from which they could not directly benefit. This concern was also potentially applicable to the islands of Molokai and Lanai since the Companies have indicated that they plan to install the necessary plant and equipment to roll out AMI only on the

islands of Oahu, Maui, and Hawaii.[4] When asked to justify why the islands of Molokai and Lanai should not be provided an opportunity to experience the purported benefits associated with the AMI project, the Companies indicated that no analyses, business plans, or other reports have been completed to support the conclusion that the installation of AMI on Molokai and Lanai would be cost effective.[5] The Companies did assert, however, that the proposed network is not cost effective for small customer bases, such as Molokai and Lanai. The reason supporting this assertion is that the minimum number of meters is 15,000 for each tower gateway basestation ("TGB").[6]

Thus, the Consumer Advocate was concerned that electricity customers on Molokai and Lanai would be asked to contribute to the project costs even if they would not be able to directly benefit from this project. The Companies indicate, however, that the "customers on Lanai and Molokai are not being requested to contribute to any of the AMI project costs under the instant Application."[7]

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4 Application, page 16.

5 See response to CA-IR-11c.

6 See response to CA-IR-11a. The TGB are part of the FlexNet AMI network and are the infrastructure required to communicate between the AMI meters and the utility company.

7 See response to CA-IR-11b.

Q. DOES THE COMPANIES' DISCLOSURE THAT THEY WILL NOT REQUEST CUSTOMERS ON THE ISLANDS OF LANAI AND MOLOKAI TO CONTRIBUTE TO THE PROJECT RAISE OTHER QUESTIONS?

A. Yes. While excluding the customers on Lanai and Molokai addresses, to some degree, the matter of equity, the proposed solution raises a different question about the benefits that can or should be made available to Molokai and Lanai. That is, as already discussed, the Consumer Advocate supports a finding that there is a need to transition to processes and procedures that will raise consumer awareness of energy consumption patterns and other related information. If the customers on Lanai and Molokai do not receive timely cost information, it is unlikely that successful demand response programs (such as dynamic pricing programs), time-of-use meters, etc. can be implemented on those islands. I am concerned about unnecessarily and/or inappropriately excluding any customer or customer class.

Q. IS THE PROPOSED IMPLEMENTATION SCHEDULE THAT RESULTS IN THE METERS BEING INSTALLED ON A FIRST-COME, FIRST-SERVED BASIS WITH THE POSSIBILITY OF ALLOWING CUSTOMERS AN OPT-OUT BASIS REASONABLE?

A. Generally, the proposed implementation schedule is not disagreeable. It makes some sense for HECO to initiate the meter replacement process. That being said, it also makes sense for the Companies to identify the areas on

Oahu initially, where AMI technology clearly is cost effective to achieve the cost savings or revenue protection associated with the AMI technology as quickly as reasonable. Subsequently, as experience is obtained, the Companies can evaluate the next set of areas, whether on Oahu, Maui or Hawaii, where the next greatest set of estimated cost effectiveness values might be achieved.

In addition, while I do not currently oppose the idea of allowing customers to opt out of TOU or dynamic rate options, this does raise a question. If the value of AMI technology is to enable pricing incentives to facilitate demand side management, allowing a significant amount of customers to opt out from such provisions should be a red flag that perhaps the TOU or dynamic pricing options need to be redesigned. Thus, assuming that the Commission is willing to allow customers to opt out, the Companies should be required to file the appropriate information for consideration by the Commission and interested stakeholders. Paragraph 7 of section 14 of the Energy Agreement already requires the filing of an annual report that will include the number of customers who opt out, but I recommend that the Companies also be required to obtain, if the customer is willing, information on why the customer opted out of the TOU or dynamic pricing options.

C. THERE ARE SOME REMAINING QUESTIONS ABOUT THE COMPANIES' PROPOSED TECHNOLOGY.

Q. AMI TECHNOLOGY HAS BEEN CONTINUALLY DEVELOPING AND CONTINUES TO EVOLVE. PLEASE DISCUSS YOUR EVALUATION OF THE COMPANIES' PROPOSED SOLUTION.

A. The Companies are proposing to use Sensus iConA meters as one of the end use devices that will communicate with the Sensus FlexNet, which uses a fixed, RF technology that uses licensed airwave band to establish the two-way communications. Based on information filed by the Companies, the Companies have not yet selected a vendor or a specific system for the MDMS.[8]

There is the obvious unanswered question about the MDMS, which essentially represents a critical component to any effective AMI system, since the MDMS will be the "brains" of the system and the main interface with other systems, e.g., CIS and OMS, which are supposed to interact with the AMI system. Until the MDMS vendor and system is selected, I do not think a conclusion can be reasonably reached regarding the reasonableness of the overall AMI system.

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8 See, e.g., the responses to CA-IR-31 and CA-IR-33. Notwithstanding the response to CA-IR-31, where the Companies assert that Sensus Metering Systems, Inc. is the only selected vendor at this time, the response to CA-IR-33 discusses how Enspiria Solutions was selected to assist the Companies in the evaluation of the MDMS technologies since the Companies have not yet selected the MDMS vendor or technology solution.

Q. BESIDES THE QUESTIONS SURROUNDING THE MDMS, ARE THERE OTHER QUESTIONS THAT COULD, OR SHOULD, BE ASKED REGARDING THE SOLUTION PROPOSED BY THE COMPANIES?

A. Yes. One of those questions relate to whether the Companies have thoroughly evaluated all of the possible options to determine the optimal AMI system solution.

Q. PLEASE EXPLAIN WHAT YOU MEAN BY THIS COMMENT.

A. One example would be that there are different possibilities that could be investigated as to the type of AMI network that will be installed. As outlined in Exhibit 3 to the application, there are different technologies and options to consider, such as whether RF or powerline carrier ("PLC") technologies should be used for the front-end network technology solution. Throughout the discussion, it appears that the Companies basically evaluated the technologies on a mutually exclusive basis. That is, it does not appear that the Companies considered solutions that might have allowed for a combination of possibilities.

To explain, an example might be how the Companies' current proposal results in the islands of Molokai and Lanai being excluded from receiving the equipment and the associated benefits and costs. Part of the reason for this determination is based on the Companies' decision to eliminate mesh RF and PLC technologies in favor of non-mesh RF networks. The Companies assert

that mesh technologies "were not considered favorable due to the higher number of network devices required, the use of unlicensed RF frequencies, and lower RF transmission power. . ."[9] Yet, in the response to CA-IR-11a., the Companies acknowledge that mesh technologies "may provide better options for small scale coverage. . ."

Based on the above, it does not appear that the Companies have necessarily evaluated all of the possibilities to develop the optimal solution. If mesh technologies are a feasible and even desirable solution for Molokai and Lanai, perhaps there are certain rural areas on Oahu, Maui, and Hawaii that could be better served by mesh technologies than the proposed fixed, RF technology that has been selected. If so, the system solution for each company should have evaluated each technology and the combination of technologies, where applicable, to consider the operational effectiveness of that technology as well as the cost effectiveness.

Q. DO YOU HAVE ANY OTHER COMMENTS ON HOW THE COMPANIES MIGHT NOT HAVE COMPLETELY ANALYZED ALL POSSIBLE SOLUTIONS?

A. Yes. Another comment that I would like to offer is that while the Companies have generally offered some justification for the selection of the preferred

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9 Exhibit 3 to the application, page 1.

solution, that justification does not always seem comprehensive and convincing.

I asked various questions to further determine the extent of the Companies' evaluations of alternative technologies. Based on the responses to CA-IR-16 and -18, it appears that detailed evaluations were primarily conducted only on Sensus AMI technology. Beginning on page 18 of the application, the Companies have conducted three pilot programs of AMI technology but otherwise only investigated other technologies such as cellular, Wi-Fi and broadband over powerlines ("BPL"). Those three pilot programs only evaluated Sensus AMI technology[10] and "no other AMI technology was evaluated as extensively by the Companies. . ."[11] While the Companies' response to CA-IR-16 identifies other technologies that the Companies evaluated, as characterized by the Companies, these evaluations were limited and, based on the Companies' disclosures, it appears that these evaluations were conducted a few years back.

For instance, the Companies discuss the evaluation of BPL conducted in 2005 and how a "high level" analysis suggested that BPL could have a breakeven period of seven to eight years, but the Companies eschewed a

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10 See response to CA-IR-16a.

11 See response to CA-IR-16b.

more detailed business case analysis.[12] Given the continued development and evolution of technologies and the magnitude of the expenditures associated with the proposed project, the record in the instant proceeding does not convincingly support the proposed solution.

Furthermore, it appears that part of the issue relates to the guarded and proprietary nature of the information that should be evaluated. In the response to CA-IR-17, the Companies' response indicates that, while the Companies participate in the Sensus FlexNet Users Group ("SFUG"),[13] the SFUG charter restricts the dissemination of information to SFUG members only. The Companies further assert that:

> It is difficult to compare Sensus AMI product costs versus Sensus' competitors, as that information is typically confidential and only available during direct contract negotiations with the AMI vendors. The Sensus Agreement expressly restricts the dissemination of pricing information. Once the Companies selected Sensus as their AMI vendor, it became difficult if not impossible to obtain meaningful price quotations from other AMI vendors. . .

This disclosure adds further support that suggests that regulators' ability to definitively determine that any proposed AMI solution is the optimal, cost effective solution is very murky because it appears that the utility

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12 In contrast, it should be noted that the Companies' response to CA-IR-3a. indicates that the simple payback periods for the proposed AMI project ranges from 13 to 20 years for the Companies.

13 SFUG is a forum "in which utilities are able to bring up issues, concerns, development requests, and solutions to problems encountered." See response to CA-IR-17a.

companies themselves are prevented from providing a comprehensive business case, including comparative analyses of various alternatives.

D. THE AGREEMENT WITH SENSUS DOES NOT APPEAR TO CONTAIN ANY UNREASONABLE PROVISIONS.

Q. THE COMPANIES HAVE PROVIDED A SUMMARY OF THE SENSUS AGREEMENT AS EXHIBIT 1 TO THE APPLICATION. THE SENSUS AGREEMENT IS PROVIDED AS EXHIBIT 1(A), WHICH IS SUBJECT TO PROTECTIVE ORDER. DO YOU HAVE ANY COMMENTS ON THE SENSUS AGREEMENT?

A. Yes. The Sensus Agreement is 160 pages long and based on the review that I was able to conduct, it generally appears reasonable. As summarized by Exhibit 1 to the application, some relevant points that support a finding that the terms and conditions of the Sensus Agreement are reasonable are as follows:

- Any equipment sold by Sensus to HECO under the Sensus Agreement will be subject to a warranty period of either: 12 months from installation at the customer's premises; or 18 months from delivery to HECO; whichever is less. See section 2(d) of Exhibit 1(A).
- If the failure rate of Sensus' meters exceeds 2.5% in any 12-month period, HECO will be released from the requirement that HECO must buy 90% of the AMI meters to be purchased by HECO only from Sensus. See section 2(i) of Exhibit 1(A).

- Sensus will provide sufficient TGBs to meet the Sensus Agreement's performance requirements (Exhibit E to the Sensus Agreement). See section 3(b) of Exhibit 1(A).
- The Regional Network Interfaces ("RNI") will be located on the Companies' property, but like the TGBs and related software, will be owned, maintained and updated by Sensus. See sections 4(c) and (d) of Exhibit 1(A).
- The Companies have the right, at any time, [redacted] See section 10 of Exhibit 1(A).
- The term of the agreement is for [redacted] and [redacted]. See section 12(a) of Exhibit 1(A).
- Terms exist to [redacted]. See, e.g., sections 14 and 16 of the Exhibit 1(A).
- HECO's [redacted]. See section 15(a) of Exhibit 1(A).
- There are provisions that ensure [redacted]. See section 15(c) of Exhibit 1(A).

- There are terms and conditions within the Sensus Agreement that [redacted]. See, e.g., Exhibit E to the Exhibit 1(A).
- The Sensus Agreement is conditioned on the Commission filing a satisfactory AMI project approval order. See section 27 of Exhibit 1(A).

There are, however, some terms and conditions that raise certain questions. Some of those questions are as follows:

- Section [redacted], indicates that the integration of [redacted], additional fees [redacted]. Thus, the potential for additional costs has already been established, [redacted].
- In section 2, page 1 of Exhibit E to the Sensus Agreement, which is page 80 of Exhibit1(A), it indicates that "[redacted] HECO, MECO, and HELCO Meters on Oahu, Maui, and Hawaii." (emphasis added) While it references [redacted] of the Sensus Agreement, it is not clear what it is referencing, since in the executive summary of [redacted], which starts on page 52 of Exhibit 1(A) to the application, it indicates that the [redacted]

The questions that I have, however, are not significant enough to conclude that the terms and conditions of the Sensus Agreement are unreasonable. While I have some concerns about the costs of the project, those questions will be generally raised in a later section of this testimony.

Thus, to summarize, while I acknowledge that there is a general need for an AMI project, partly supported by the Energy Agreement and also supported by the growing need to disseminate information to consumers to aid in their education on how to be better consumers of energy and the Sensus Agreement generally appears reasonable, it is not entirely clear that the proposed AMI system that the Companies have set forth is the optimal solution.

III. IT IS NOT CLEAR THAT THE COSTS OF THE PROPOSED AMI PROJECT IS REASONABLE.

Q. EARLIER, YOU INDICATED THAT THE PROPOSED PROJECT COST IS OVER $115,000,000. DO YOU THINK THAT THE COMMISSION SHOULD FIND THIS REASONABLE?

A. First, I hope that facts will prove me wrong, but I am concerned that the project will actually end up costing more than $115,000,000. There are various reasons for this concern. Some of those reasons have been articulated in other dockets as applicable to the projects in those dockets, but I believe that

those reasons are also applicable to the instant docket. Some of those reasons are as follows:

- The estimated cost of the project has already increased by $5,000,000. The MDMS and its vendor have not yet been selected. While the current economic conditions might suggest that there is a willing vendor to sell an MDMS that meets the Companies' requirements at a cost that might be lower than if economic conditions were better, it is also possible that the costs will increase due to conditions that have an upward pressure on the final cost of the MDMS.
- It is possible that a vendor might quote a lower price in order to secure the contract, but then, through subsequent change orders or other means, the cost will increase such that the final cost of the AMI project will be higher than projected.
- As will be discussed in greater detail, there are certain benefits to the proposed AMI system that can only be achieved with the successful interface with other systems, such as the customer information system. Without those other systems in place or interfaces that work correctly, the expected value of the AMI project will be less than projected.
- As the proposed project is implemented, there may be various difficulties that could be encountered. Such as, since the pilots conducted so far have only been on Oahu and in fairly urban areas, it is possible that as the plant and equipment are deployed in the various

rural areas with different environmental conditions, the system does not perform as expected.

- The Companies may not be able to implement the project on schedule due to the scope and complexity of the project, including interfaces with other systems. Possible delays can be caused by various factors, including, but not limited to:
  - The Companies have other ongoing, major IT projects (e.g., the CIS that was the subject of Docket No. 04-0268) that may extend HECO's existing resources such that the AMI project may be delayed.
  - Even if the CIS system is completed, the Companies will need to make sure that the AMI project properly interfaces with the CIS to achieve some of the intended functions that will be enabled by the AMI, such as TOU for all customer classes.
  - There may be delays caused by the vendor or the suppliers to the vendor.

There are examples of events that have occurred that exemplify these concerns and some of those examples are relevant to HECO, MECO and/or HELCO. Any delays could lead to increased charges, especially since the Companies are seeking the ability to accrue AFUDC on the deferred costs associated with the proposed AMI project.

A. THE COMPANIES DID NOT RELY ON A BIDDING PROCESS.

Q. ARE THERE ANY OTHER CONCERNS REGARDING THE PROJECTED COSTS ASSOCIATED WITH THE PROPOSED PROJECT?

A. Yes, there are. For many significant projects, it is common for entities to rely on the use of the bidding process to select the vendor that best meets the entities' needs at a reasonable price. The bidding process allows interested vendors to identify their proposed goods and/or services and the associated costs. The entity requesting the bids can then evaluate the different bids to determine differences, if any, and evaluate the different costs and the perceived value or cost associated with those differences.

Since the proposed project has a projected total cost exceeding $115 million, there is no doubt that the cost is significant. The total costs rival that of any major capital improvement project, such as a generating unit or transmission line. Given the significance, it would seem clear that the Companies should seek to obtain whatever support possible to convince the Commission that the costs are reasonable. Since the Companies did not rely on a bidding process, the Companies' decision to abstain from using a bidding process does not cast a favorable light on the determination that the project costs are reasonable.

Q. WITHOUT THE USE OF THE BIDDING PROCESS, DO YOU CONCLUDE THAT THE ESTIMATED PROJECT COSTS ARE UNREASONABLE?

A. No. It is possible that the project costs are very reasonable, but without other bids against which to compare, I contend that it becomes harder for a company to meet its burden of proof regarding any assertion that the costs are reasonable.

Q. GIVEN THE ABOVE, WHAT IS YOUR RECOMMENDATION REGARDING THE NEED FOR THE COMMISSION TO FIND THAT THE PROJECT COSTS ARE REASONABLE?

A. Before I offer any recommendation, I would like to point out that it is the Companyies' burden of proof to convince the Commission that the costs are reasonable and it is not the Consumer Advocate's task to find ways to justify a project for the utility company.

That being said, while I recognize that the Companies have offered various qualitative discussions attempting to justify the proposed AMI project as being reasonable, I contend that the quantitative aspects must also be clearly supported. Since the Companies did not rely on a bidding process, I also attempted to evaluate whether the Companies have information to support quantitative analyses that might suggest that the proposed project is cost effective.

B. THE COMPANIES' COST BENEFIT ANALYSIS DOES NOT SUGGEST A COST EFFECTIVE PROJECT.

Q. PLEASE DISCUSS YOUR EFFORTS TO DETERMINE WHETHER THE COMPANIES HAD ANY INFORMATION TO PERFORM QUANTITATIVE EVALUATIONS TO SUPPORT THE CONCLUSION THAT THE PROPOSED AMI PROJECT IS COST EFFECTIVE.

A. I asked the Companies to provide the estimated pay back periods for the proposed project in CA-IR-3. In response, the Companies provided the following:

AMI BENEFIT COST EVALUATION		
	B/C RATIO DISCOUNTED	B/C RATIO SL
HECO	0.94	1.42
HELCO	0.71	1.00
MECO	0.81	1.17

SOURCE: Attachment 1 to CA-IR-3.[14]

In addition, the Companies also provided the following information in response to CA-IR-3:

AMI BENEFIT COST EVALUATION		
	B/C RATIO DISCOUNTED	B/C RATIO NON-DISC
HECO	0.73	0.73
HELCO	0.71	0.64
MECO	0.81	0.64

SOURCE: Response to CA-IR-3a.

It should be noted that the ratio is calculated where a result of 1.0 means that the benefits and costs are approximately equal. When the

[14] In Attachment 1 to CA-IR-3, the Companies' response appears to have a typographical error, where besides HECO, there were two entries for HELCO. I assume that one of the entries must be for MECO.

result is less than one, it means that the costs exceed the benefits and, if the result is greater than one, the benefits exceed the costs. Adjustments could have been made to perform sensitivity analyses to the assumptions used in the model including the estimated costs, benefits and discount factor. I could not perform these types of analyses, however, because the excel spreadsheet with the model used to evaluate the cost benefit ratios was locked with a password.

Looking at the hard copy of the model, there are various comments that can be made regarding the assumptions and estimates. Some of those comments are as follows:

- I was not able to verify the reasonableness of some of the estimated benefits and those estimates look overestimated. The following are some examples.
  - One of the benefits that has been identified is meter accuracy gains. For the projected levels of savings to be reasonable, the underlying assumption related to the average level of inaccurate readings per meter being so skewed towards slow meters should be better justified.
  - Another benefit, energy theft recovery, also seems fairly high. Similar to the meter accuracy estimates, the basis for the belief that such levels of energy theft to exist in Hawaii should be justified.

- Some of the purported savings may not actually represent savings. For example, the Companies assert that there are meter capital savings. These savings appear to be "savings" that are related to the Companies not having to buy non-AMI meters and installing them. I disagree with the characterizations of these estimates as savings. If the Companies conducted scenario analyses that included the cost differential between the purchase and installation of AMI and non-AMI meters in that type of model, then these types of estimates might then be acceptable for that particular type of analysis.
- It is not clear whether the quantified benefits related to meter accuracy and energy theft are achievable without the CIS that is the subject of Docket No. 04-0268.[15] If additional work is required to achieve some of the purported benefits, but those costs have not been quantified and included in the model, the results of the model will not be reasonable and reliable.
- There may be other costs that may not have been quantified. For instance, given the significant difference between the processes and expectations between AMI and non-AMI, the need for customer education will result in additional costs. The costs associated with

[15] As acknowledged by the response to CA-IR-9, without the new CIS in place, "there would be limitations in the timing and quantity of data exchange. HECO personnel would have to perform operations in both the legacy and the MDMS to complete their business processes. This would result in inefficiencies in their work processes. HECO currently has no specific information to quantify any costs related to these in-efficiencies."

advertising and training of customers have not yet been developed. See response to CA-IR-10.

- Some of the possible benefits may not have been identified and quantified for consideration in the model. CA-IR-4 asked about various possible savings that could result from AMI[16] but the Companies' response acknowledged that some of these possible benefits were not quantified for various reasons.

It is possible that some of these concerns might be addressed by the information included within the model. However, without the ability to review the cell formulae and references in any model, it is not reasonable to expect a party to review the hard copy of the model without allowing additional time for such a time-consuming review.

Furthermore, the Companies asserted that its payback periods are 13, 17, and 20 for HECO, MECO, and HELCO.[17] Given that the purported lives of the meters are 15 years,[18] even assuming that no changes are made to adjust those values, other than for HECO, the proposed project will not result in a break even before additional investments will have to be made to replace the meters. If the assumption that some of the expense estimates are

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16 Some of the possible savings itemized in CA-IR-4 were items that were identified as potential savings or benefits used to justify AMI projects in other jurisdictions.

17 See response to CA-IR-3.

18 See footnote 31, page 21 of the application.

understated or the benefits are overstated, then the payback period will be even longer.

Q. IN THE RESPONSES TO THE INFORMATION REQUESTS, THE COMPANIES PROVIDED UPDATES. DOES THE ABOVE DISCUSSION REFLECT THOSE UPDATES?

A. Yes. The Companies' response to various information requests (e.g., CA-IR-35, which specifically asked for updated estimates for costs and benefits) provided updates which have been considered in the discussion above. It should be noted that the updates already reflect an almost $4 million increase in the projected capital costs and a $1 million increase in the projected expenses. Thus, since the time of the original estimates included in the application filed in December 2008 (an approximate six month period), the costs have already increased by $5 million. The original estimate was already significant and additional increases in the project costs only exacerbate the concerns regarding the need to verify cost effectiveness.

With such a significant investment, it is important that the project clearly provide value to the ratepayers if they are expected to compensate the Company for the project costs. While the idea of an AMI system is a good one, it is important that the proposed system be cost effective. Given the many projects or changes that will come about from the Energy Agreement, it is likely that consumer will see their rates increase significantly. If the

underlying projects or changes are not cost effective, the resulting financial impact on ratepayers will not be in the public interest.

The proposed project is different than the automated meter reading ("AMR") project that was presented in Docket No. 97-0387, where it will potentially provide significantly more benefits and impacts than just reducing certain meter reading costs. While AMR might have seemed like a good idea then, in the statement of position drafted and shared with HECO, the Consumer Advocate pointed out that HECO had not presented a convincing case that the AMR project would be cost effective. Similarly, it is not clear that the Company has provided a convincing case that the proposed AMI project is cost effective.

IV. SHOULD THE COMPANIES' REQUESTED ACCOUNTING PROCEDURES AND COST RECOVERY MECHANISMS BE APPROVED?

Q. THE COMPANIES HAVE REQUESTED, IN ASSOCIATION WITH THE PROPOSED AMI PROJECT, VARIOUS BOOK AND REGULATORY ACCOUNTING TREATMENT AS DESCRIBED IN SECTION XI.B. OF THE COMPANIES' APPLICATION. PLEASE DISCUSS THE CONSUMER ADVOCATE'S POSITION ON THESE REQUESTS.

A. First, while the Companies have indicated that the expected useful life of the AMI meters is 15 years, the Companies propose to recover the costs over

seven years for ratemaking purposes, but continue to reflect the recovery of the meters over 15 years for book purposes.

Based on the response to CA-IR-26, the Companies assert that the proposed accounting treatment will send a message to the investing community about Hawaii's support for the recovery of utility investments. That being said, the Companies have not received anything from the rating agencies that specified that the Companies' credit rating will be adversely and specifically impacted without the requested accounting treatment.

As set forth in the Energy Agreement, the meters and the associated costs are to be "paid for through the [Clean Energy Infrastructure Surcharge], until such costs are embedded and recovered in the utilities' base rates in future rate cases." With this provision, the Companies should receive timely recovery of the costs as discussed in the response to CA-IR-26. And, the Companies' requested accelerated recovery is not entirely consistent with the Energy Agreement. Thus, I recommend that the Commission not approve the accelerated recovery request.

Next, the Companies are also requesting accelerated cost recovery of the non-AMI meters to be replaced by the AMI meters. The Companies indicate that, for book accounting purposes, the Companies will continue depreciating the existing non-AMI meters using existing depreciation rates. For ratemaking purposes, the Companies are proposing to recover the remaining net book value for the existing non-AMI meters (currently estimated

at $13,960,000 for HECO, $4,899,000 for MECO, and $9,238,000 for HELCO), over a three-year period beginning with the date of the Commission's decision and order in the instant proceeding. Thus, the cost of these non-AMI meters would essentially be recovered even before all of those non-AMI meters have actually been replaced by AMI meters.

Q. SHOULD THE COMMISSION APPROVE THIS REQUEST?

A. Similar to the accelerated recovery of the AMI meters, I do not believe that the Companies have justified the accelerated recovery of the non-AMI meters.

Q. DO YOU HAVE ANY COMMENTS ABOUT THE COMPANIES' PROPOSED ACCOUNTING FOR ITS MDMS COSTS?

A. The Companies are proposing to treat the MDMS capital costs consistently between book and ratemaking treatment. As for MDMS software development costs, the Companies are proposing to use ratemaking and book accounting treatment consistent with past proceedings involving software development projects. Finally, for the MDMS expenses, the Companies are proposing to record and recognize MDMS-related expenses as incurred. For ratemaking purposes, the expenses will be included in the revenue requirements to be recovered through the surcharge.

I have some concern with the proposed deferral of the software development costs. The 12-year period is consistent with past proceedings,

and the rate is consistent with the period used for depreciating software projects last approved by the Commission. However, given the magnitude of the project costs, I have some question about whether it might be more reasonable to use a longer recovery period with the expectation that the Company should not replace the system within 12 years. That is, if the proposed system will last only 12 years, the value of the system, especially given the Company's own cost benefit ratio analyses, which relied on 20-year horizon, the importance of ensuring that the proposed project is cost effective is increased.

Q. THE COMPANIES' PROPOSED TREATMENT FOR THE AMI NETWORK IS MOSTLY SIMILAR TO THE PROPOSED TREATMENT FOR THE SOFTWARE DEVELOPMENT COSTS. ONE DIFFERENCE IS THAT, SINCE THE NETWORK WILL ESSENTIALLY REMAIN AS SENSUS PROPERTY, THE MONTHLY FEE FOR THE AMI NETWORK CONSTITUTES AN OPERATING LEASE. THE COMPANY IS REQUESTING THAT THE RATEMAKING BE BASED ON THE LEASE PAYMENTS OVER THE LIFE OF THE LEASE. WHAT IS THE CONSUMER ADVOCATE'S POSITION ON THE ACCOUNTING TREATMENT FOR THE AMI NETOWRK COSTS?

A. Based on the determination that the lease represents an operating lease, allowing the Companies to recognize the lease expense on a straight-line basis for ratemaking purposes, even though it results in the level of recognition

greater than the lease payment in the early years of the lease term, seems reasonable. The Companies indicate that, if the Commission approves this treatment, it will allow the Companies to record a regulatory asset, but the Companies acknowledge that since the funds are not investor provided funds, it would be reflected in rate base. It should be clarified, however, that if the Companies are allowed to recover a certain level of costs early such that there is a difference between book and regulatory treatment, it may be necessary to reflect the difference in rate base as an offset.

Q. THE COMPANIES SUMMARIZE THEIR PROPOSED ACCOUNTING TREATMENT BY MAKING CLEAR THAT NOT ALL COSTS ARE GOING TO BE RECOVERED THROUGH A SURCHARGE. ONLY COSTS NOT ALREADY REFLECTED IN BASE RATES OR ANOTHER SURCHARGE WILL BE SUBMITTED FOR RECOVERY THROUGH A SURCHARGE. FURTHER, THE COMPANIES WILL ONLY RECOVER THE COSTS NET OF INCREMENTAL QUANTIFIABLE BENEFITS CREATED BY THE AMI PROJECT NOT ALREADY CAPTURED IN BASE RATES. DO YOU BELIEVE THAT THIS PROPOSAL IS REASOANBLE?

A. The Companies' proposal to recover only the net incremental costs represents a reasonable balance. If such costs are to be allowed, there should be a clear showing that all quantifiable benefits are considered when determining the net

costs to be recovered. The benefits to be considered should be all inclusive and not just limited to the benefits that are listed on page 76 of the application.

Q. AS IT RELATES TO COST RECOVERY, THE COMPANIES ARE GENERALLY REQUESTING THAT ALL INCREMENTAL COSTS BE RECOVERED THROUGH THE RENEWABLE ENERGY INFRASTRUCTURE PROGRAM ("REIP") SURCHARGE. THE INCREMENTAL COSTS ARE THOSE COSTS NOT ALREADY REFLECTED IN BASE RATES. IS THIS TREATMENT REASONABLE?

A. In the Energy Agreement, the signatories agreed that the costs associated with the AMI project would be recovered through the CEIS.[19] In the instant application, the Companies are apparently trying to maximize the possibility that incremental costs associated with the AMI is recovered as quickly as possible since the Companies are proposing that if the Commission is not going to authorize the development of the REIP surcharge or the CEIS, the Commission should authorize the creation of an AMI surcharge.

I contend that, given the existing efforts to create a REIP surcharge, it is unnecessary to create an AMI surcharge. The concern with authorizing an

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19 It should be noted that the Companies are seeking Commission approval to establish a REIP surcharge in Docket No. 2007-0416, through which it proposes to recover certain costs. Those costs are discussed in more detail in that docket. The Energy Agreement discussed the development of the CEIS, which is, more or less, the same as the REIP, i.e., a surcharge that will allow the Companies an opportunity to recover certain incremental costs associated with renewable energy development not already reflected in base rates.

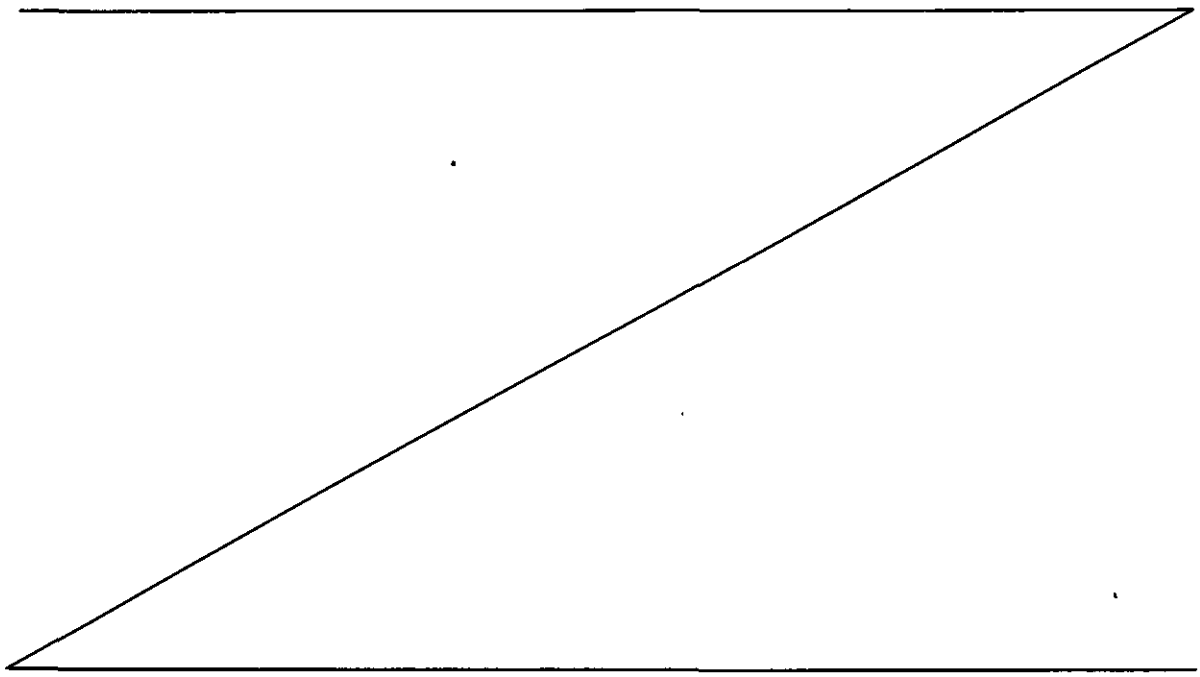
AMI surcharge is that, with too many different surcharges, it will become more difficult and complex to reconcile the various revenues, expenses, and rate base elements that need to be considered when evaluating what was recovered through base rates and/or another surcharge and what should be recovered as an incremental item through a surcharge.

As stated earlier, if the Commission does allow incremental costs to be recovered through any surcharge, it should be made clear that all benefits should be considered when determining the net costs to be recovered through the surcharge. I note that calculating savings is difficult since such efforts can generally result in varying results due to the need to rely heavily on various assumptions. While it may be difficult, all reasonably identifiable benefits must be quantified and used to determine the net amount to be recovered through the surcharge.

In addition, in Docket No. 2008-0083, significant adjustments were made to adjust projected CIS costs, both capital and expense, which were included in HECO's test year projections. To the extent that any AMI project costs begin to be recovered through any surcharge, it is important that the cost recovery of those items reflect consideration of the costs already included in base rates for the AMI project as well as any legacy systems and/or other labor and non-labor costs incurred to perform functions and duties to be replaced or superseded by the AMI.

Q. THE COMPANIES ARE PROPOSING TO RECOVER THE COSTS FROM THE CUSTOMERS BASED ON THE NUMBER OF METERS. DO YOU HAVE ANY OBJECTIONS TO THIS?

A. I do have some concerns. I acknowledge that sometimes the costs associated with developing a more complex cost allocation approach outweigh the potential benefits of the increased accuracy. That being said, the proposed cost allocation, while relatively simple, raises some questions. One such question relates to the possible costs that might be incurred to integrate the proposed AMI project with the new CIS that HECO is currently developing. In addition, it is possible that additional costs might be incurred to integrate HECO's outage management system with the AMI system. These costs would not directly benefit HELCO's and MECO's customers. Yet, if costs are primarily allocated based on the number of meters, some costs might be inappropriately allocated to HELCO's and MECO's customers.



Q. IN OTHER DOCKETS INVOLVING IT SYSTEMS, THE CONSUMER ADVOCATE OFFERED RECOMMENDATIONS REGARDING THE PROPER ACCOUNTING FOR IT PROJECT COSTS. ARE THOSE RECOMMENDATIONS GENERALLY APPLICABLE TO THE INSTANT DOCKET AS WELL?

A. Yes. The Commission should make clear that the Companies should demonstrate that the appropriate accounting procedures are in place to adhere to the following:

- All process re-engineering costs should be properly identified and expensed. Given the significant difference in procedures and activities associated with non-AMI and AMI systems, I expect that there will be significant levels of costs incurred related to restructuring the existing work force to accommodate the transition to using an AMI system. The Companies should ensure that all such costs that reasonably fit within the definition of the issues discussed in Emerging Issues Task Force Bulletin No. 97-13 should be identified and excluded from cost recovery as a capital or deferred item, since these costs should be expensed.
- As with the other dockets, the Companies must maintain the appropriate documentation to clearly justify the classification of costs among the three types of costs to be incurred (i.e., capital, deferred, and expense). Without the proper documentation, it will be difficult, if not impossible, for regulators to evaluate, whether comprehensively or

on a sample basis, whether the Companies have classified all of the costs in accordance with the applicable accounting guidelines.

- *Similar to the above concern, the Companies must maintain the* appropriate documentation to verify that none of the costs to be capitalized include general and administrative costs or overhead costs. The Financial Accounting Standards Board Statement of Position 98-1 clearly prohibits the capitalization of any general and administrative costs and overhead costs. While the Companies' standard operating procedures may result in the loading or addition of certain general and administrative costs or on-costs[20] to capital projects, the appropriate adjustments must be made to exclude those costs from any IT systems project.

Q. SHOULD THE COMMISSION ALSO REQUIRE THE ACCOUNTING REPORTS SIMILAR TO THOSE RECOMMENDED IN OTHER APPLICATIONS RELATED TO IT PROJECTS?

A. While those reports should definitely be provided, I note that, as outlined in section XIII of the application, the Companies acknowledge the provision in the Energy Agreement requiring the filing of status reports on the AMI project. It may be assumed, but I would like to make clear that the Companies should

[20] The Companies use the term on-costs to refer to overhead costs.

also file information required by the Commission in other applications involving IT projects, such as:

- A notification letter when the Companies select a MDMS vendor and the projected costs, if different from that set forth in the application.
- Notification letters any time that there is a significant change in the projected cost, scope or expected functionality of the proposed AMI project.
- A cost report on the AMI project that reports the final costs incurred, the classification of the costs as capital, deferred, and expense, and the summary level report or work orders to support the respective amounts.

V. THE COMMISSION SHOULD APPROVE THE USE OF TOU RATES.

Q. THE COMPANIES ARE REQUESTING THE EXPEDITED APPROVAL OF TOU RATES. DO YOU BELIEVE THAT THE COMMISSION SHOULD APPROVE THE REQUEST?

A. The TOU rates that are being proposed by the Companies are the rate design form proposed in HECO's 2009 test year rate case (Docket No. 2008-0083) and are based on the costs in the most recent rate case. Consistent with the positions taken in the most recent HECO rate case, I do not have any recommended modifications to the proposed TOU rate design form. Thus, the TOU rate design form should be approved by the Commission. Even if the

CIS is not yet available[21] and the AMI meters are not fully implemented, it is important to have TOU rates in place to facilitate the transition to allowing consumers alternatives in terms of relying on pricing signals to influence their energy consumption.

VI. OTHER MATTERS.

A. CONCERNS RELATED TO THE EXPECTED INTERFACES AND INTERACTION WITH OTHER EXISTING OR FUTURE SYSTEMS SHOULD BE CONSIDERED AND RESOLVED.

Q. ARE THERE OTHER MATTERS THAT YOU WISH TO BRING TO THE COMMISSION'S ATTENTION?

A. Yes. As already mentioned, the CIS project that was the subject of Docket No. 04-0268 has not yet been completed. It is my understanding that this system is important to the value of the proposed AMI project. Without a fully functioning CIS system, the Companies will have to rely on manual calculations or additional efforts. Additionally, costs will have to be incurred to integrate the existing legacy systems with the AMI project. Thus, without the CIS, full scale roll-out of the AMI with all of the benefits envisioned, such as TOU rates and dynamic pricing programs, can not be experienced. While the Companies contend that certain features will still be realizable, the Companies

[21] If the CIS is not operational, the Companies will have to continue to rely on manual calculations to allow customers to take advantage of TOU rates.

acknowledge that complex billing requirements such as TOU will not be supported.[22]

As a result, I am concerned about the potential impact that this has on the costs of the AMI project (e.g., delays causing increase AFUDC accruals, vendor time and cost increasing due to remobilizing, difficulties with integration, etc.). The existing problem with the CIS project might also cause ratepayers to bear the burden of the AMI project but not receive any corresponding benefits. That is, if the project is approved by January 2010 and the CIS project issues have not yet been resolved, the implementation of the AMI project might begin but many of the perceived benefits will not be realizable. Thus, consumers will be required to compensate the Companies for an investment that is basically not useful. This is not a reasonable expectation.

While the example I have provided specifically identifies the CIS, similar questions and concerns regarding other existing or possible systems should be considered and clearly addressed. Another example of this possible concern is the synergies (or lack thereof) that should exist between the AMI system and the Outage Management System ("OMS") that was the subject of Docket No. 04-0131. In the instant proceeding, the Companies have indicated that one of the expected functions of the AMI system is the ability to enhance

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22 See response to CA-IR-9.

the Companies' ability to deal with outages. This same function was used to justify the OMS and I am concerned that there are possible adverse events that might occur, such as: 1) the two systems might provide redundant functions, which would be wasteful; 2) the two systems might not be able to interface and work in a synergistic fashion; or 3) in order for the two systems to work cooperatively as expected, significant effort and costs that have not been forecasted will need to be incurred.

B. POTENTIAL IMPACTS OF THIS SYSTEM ON OTHER ONGOING EFFORTS TO ADVANCE THE ENERGY AGREEMENT NEED TO BE EVALUATED TO PROCEED WITH OPTIMAL DESIGNS IN MIND.

Q. DO YOU HAVE ANY OTHER CONCERNS?

A. Yes. I have also been mulling the possible interaction between the proposed decoupling that is currently ongoing in Docket No. 2008-0274 and the impact that the results of decoupling will have on one of the major benefits generally associated with AMI systems. That benefit relates to the value of having pricing signals used to encourage demand-side management. That is, through TOU rates or certain pricing programs, such as dynamic pricing programs, an electric utility company is able to send certain pricing signals to customers to modify consumption patterns such as decreasing usage during peak rates, encourage customers to aggressively pursue energy efficiency measures to reduce electricity bills, and other possible desirable behaviors. With decoupling, however, it is possible that the effectiveness of these pricing

signals may be diluted or effectively muted. This would reduce the long-term value of the AMI project.

I have attempted to research whether other jurisdictions have allowed decoupling for all customer classes combined with TOU or other pricing programs designed to modify customer behavior in order to research whether such a combination has been found to be effective or counter-productive. I have not yet found any such jurisdictions, but I will continue to look for such information.

Q. PLEASE EXPLAIN WHY DECOUPLING MIGHT HAVE THIS IMPACT.

A: With the proposed decoupling, regardless of what caused a possible decrease in sales, through the revenue balancing account and rate adjustment mechanism that is currently before the Commission, rates will increase such that the decrease in sales does not mean a decrease in the Companies' income. Thus, if a customer does shift consumption to avoid using energy during peak times, rates may correspondingly increase to allow the utility company to recover the lost revenues that occurred when the consumer's consumption patterns changed. If rates continue to be adjusted in this fashion, customers may actually perceive that there is no benefit to implement energy efficiency measures, since a customer investment might be required to achieve the efficiencies, but the total electricity bill will essentially remain the same over the long-term. Similar concerns might exist for customer behavior

modification, where a customer might modify his/her behavior to consume energy at a lower rate or different time, but the total bill stays the same. This is not a desirable result.

At this time, I have not been able to quantify the effects that decoupling will have on the value of the proposed AMI project, but this is a concern that must be addressed. Notwithstanding the Energy Agreement, it is important to ensure that the costs recovered from the ratepayers results in the ratepayers receiving value, especially in these tough economic times when residents and businesses are all struggling with cash flow concerns.

Q. SECTION 13 OF THE ENERGY AGREEMENT DISCUSSES DEMAND RESPONSE PROGRAMS. DO YOU WISH TO OFFER ANYTHING RELATED TO THE POSSIBLE INTERACTION OF THE AMI PROJECT AND DEMAND RESPONSE PROGRAMS?

A. Yes. In Docket No. 2008-0074, HECO has requested Commission approval of a dynamic pricing program, which will offer peak time rebates to encourage customer demand response to certain critical peak events.[23] It is this type of program that a cost effective AMI system will facilitate since, without such a

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23 On June 5, 2009, the Commission filed its Order Directing HECO to Modify Its Dynamic Pricing Pilot Program, which requires HECO to modify the proposed pilot program to, "at a minimum, address the recommendations and concerns outlined in the Consumer Advocate's [statement of position]." In the alternative, HECO and the Consumer Advocate may file a stipulation related to the proposed program, but either alternative requires sufficient support for the Commission to make a finding of reasonableness. See Ordering paragraph on page 9.

AMI system, the Companies would primarily have to rely on non-integrated systems and/or manual efforts to implement and calculate the rebates. Furthermore, without a cost effective AMI system, the Companies would be essentially prohibited from offering such programs to all customers or even to some of the customer classes in their entirety.

Thus, if the Commission shares some of the concerns discussed in my testimony in the instant proceeding, it is important that these concerns be resolved in a timely fashion to prevent the unnecessary delay of these types of pricing programs.

Q. ARE THERE ANY OTHER ITEMS THAT SHOULD BE DISCUSSED?

A. Yes. As reflected in the Energy Agreement, the financial impacts of advancing the AMI project should be minimized on low income and disadvantaged customers. I contend that the overall financial impacts of the AMI project should actually be reasonable for all customers, which is why I have offered recommendations regarding the need to find the proposed project cost effective before unqualified approval should be granted. That being said, given the importance of electricity to today's society, such as the significant reliance on information technology, it is also very important to maintain affordable electricity rates for low income and disadvantaged customers.

I note that the Companies filed an application on April 30, 2009 with their proposed Lifeline Rate Program. This docketed matter is still in its early

stages and no procedural schedule has been developed, yet. That being said, it is important to be aware that the appropriate measures must be in place to mitigate the impacts of the proposed AMI project on low income and disadvantaged customers as agreed to in the Energy Agreement.

C. IT APPEARS THAT THE COMPANY HAS ADDRESSED THE SECURITY OF CUSTOMER INFORMATION.

Q. IN OTHER DOCKETS, THE CONSUMER ADVOCATE HAVE DISCUSSED THE NEED TO TAKE THE APPROPRIATE MEASURES TO PROTECT CUSTOMER RELATED DATA. DO YOU HAVE THOSE CONCERNS IN THIS DOCKET?

A. Yes. Anytime that customer data may be released or accessed by parties outside of the customer and a utility company, that utility company must be able to address the measures taken to protect customer privacy. In this instance, since the proposed project deals with the transmission of individual customer data by the AMI meter as well as an outside party being able to potentially able to access the accumulated data, this need is magnified even more.

Based on information in the instant docket, however, it appears that adequate measures are in place. For instance, the meters will rely on certain secure encryption technology to protect the transmissions from the AMI meter.

In addition, there are provisions in the Sensus' Agreement where Sensus has agreed to language that should protect the integrity of the customer data.

VII. CONCLUSION.

Q. COULD YOU PLEASE SUMMARIZE YOUR TESTIMONY?

A. The Companies have provided an application with various supporting documents and exhibits and also provided much information through the discovery process. Even still, it is not clear that all of that information has necessarily provided sufficient evidence that the proposed AMI project is cost effective. If the Commission finds that it shares my concerns, I contend that the Companies must be required to better quantify the costs and benefits to ensure that ratepayers are not asked to pay for a more than $115 million investment that might not be able to pay for itself before it needs to be replaced again.

While supporting the Energy Agreement is integral in helping Hawaii permanently move towards a sustainable energy future, if the proposed AMI project cannot be shown to clearly provide a significant contribution towards that future, the Companies should address the concerns before approval should be granted. Thus, subject to the Companies addressing the various concerns or recommendations offered for the Commission's consideration in sections II through VI, the Commission should not approve the Companies' request with qualifications.

The Consumer Advocate supports the AMI project and believes it is an important part of allowing consumers greater understanding and control over the dynamics existing among electricity generation, delivery and consumption, but if the ratepayers are going to be asked to pay for such a project, that project must be well supported and not have such significant outstanding concerns or questions.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

DEAN NISHINA

Educational Background and Experience

Business Address:	335 Merchant Street Honolulu, Hawaii 96813
Position:	Public Utilities/Transportation Officer
Years of Service:	Since October 1992
Business Affiliations:	Division of Consumer Advocacy, Department of Commerce and Consumer Affairs, State of Hawaii 1989 - 1992 -- Arthur Andersen & Co., Utilities, Telecommunications, Transportation, and Government Division, Chicago, Illinois
University or College:	Northwestern University, Evanston, Illinois DePaul University, Chicago, Illinois
Degree:	Bachelor of Arts in Economics and Psychology and Certificate of Asian Studies Master of Science in Accountancy
Certification:	1993 -- Certified Public Accountant
Regulatory Experience:	People's Gas, Light & Coke Co. Chicago, Illinois 1992 rate case.
Other Curriculum:	Certificate - Center for Public Utilities NARUC - Regulation and Rate Making Process, New Mexico State University, 1993 and 1999.
Previously Testified:	I have testified and/or participated in all utilities and transportation areas regulated by the Commission.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing **DIVISION OF CONSUMER ADVOCACY'S DIRECT TESTIMONY** was duly served upon the following parties, by personal service, hand delivery, and/or U.S. mail, postage prepaid, and properly addressed pursuant to HAR § 6-61-21(d).

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DATED: Honolulu, Hawaii, June 22, 2009.

Deniree Lpoak